RAW SEQUENCE LISTING

DATE: 08/15/2001 TIME: 12:29:51

PATENT APPLICATION: US/09/494,585

Input Set : A:\Cura57U1.APP

Output Set: N:\CRF3\08152001\I494585.raw

ENTERED

```
3 <110> APPLICANT: Shimkets, Richard A
              Prayaga, Sudhirdas K
      6 <120> TITLE OF INVENTION: Novel Fibroblast Growth Factor and Nucleic Acids
              Encoding Same
      9 <130> FILE REFERENCE: 15966-557 FGF-CX
C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/494,585
C--> 12 <141> CURRENT FILING DATE: 2001-01-31
     14 <150> PRIOR APPLICATION NUMBER: USSN 60/145,899
     15 <151> PRIOR FILING DATE: 1999-07-27
     17 <160> NUMBER OF SEQ ID NOS: 13
     19 <170> SOFTWARE: PatentIn Ver. 2.1
     21 <210> SEQ ID NO: 1
     22 <211> LENGTH: 633
     23 <212> TYPE: DNA
     24 <213> ORGANISM: Homo sapiens
     26 <220> FEATURE:
     27 <221> NAME/KEY: CDS
     28 <222> LOCATION: (1)..(633)
     30 <400> SEQUENCE: 1
     31 atg gct ccc tta gcc gaa gtc ggg ggc ttt ctg ggc ggc ctg gag ggc
                                                                            48
     32 Met Ala Pro Leu Ala Glu Val Gly Gly Phe Leu Gly Gly Leu Glu Gly
                                              10
     33
          1
     35 ttg ggc cag cag gtg ggt tcg cat ttc ctg ttg cct cct gcc ggg gag
                                                                            96
     36 Leu Gly Gln Gln Val Gly Ser His Phe Leu Leu Pro Pro Ala Gly Glu
                                          25
     39 egg eeg eeg etg etg gge gag ege agg age geg geg gag egg age geg
                                                                            144
     40 Arg Pro Pro Leu Leu Gly Glu Arg Arg Ser Ala Ala Glu Arg Ser Ala
                                      40
     43 cgc ggc ggg ccg ggg gct gcg cag ctg gcg cac ctg cac ggc atc ctg
                                                                            192
     44 Arg Gly Gly Pro Gly Ala Ala Gln Leu Ala His Leu His Gly Ile Leu
                                  55
     45
     47 egc egc egg eag etc tat tge ege acc gge tte eac etg eag atc etg
                                                                            240
     48 Arg Arg Arg Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Gln Ile Leu
                                                  75
                              70
     51 ccc gac ggc agc gtg cag ggc acc cgg cag gac cac agc ctc ttc ggt
                                                                            288
     52 Pro Asp Gly Ser Val Gln Gly Thr Arg Gln Asp His Ser Leu Phe Gly
                                              90
     55 atc ttg gaa ttc atc agt gtg gca gtg gga ctg gtc agt att aga ggt
                                                                            336
     56 Ile Leu Glu Phe Ile Ser Val Ala Val Gly Leu Val Ser Ile Arg Gly
                                         105
     59 gtg gac agt ggt ctc tat ctt gga atg aat gac aaa gga gaa ctc tat
                                                                            384
      60 Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Asp Lys Gly Glu Leu Tyr
                                     120
                 115
      63 gga tca gag aaa ctt act tcc gaa tgc atc ttt agg gag cag ttt gaa
                                                                            432
      64 Gly Ser Glu Lys Leu Thr Ser Glu Cys Ile Phe Arg Glu Gln Phe Glu
                                                      140
                                 135
             130
      65
      67 gag aac tgg tat aac acc tat tca tct aac ata tat aaa cat gga gac
                                                                            480
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/494,585

DATE: 08/15/2001
TIME: 12:29:51

Input Set : A:\Cura57Ul.APP

Output Set: N:\CRF3\08152001\I494585.raw

```
68 Glu Asn Trp Tyr Asn Thr Tyr Ser Ser Asn Ile Tyr Lys His Gly Asp
                                           155
                      150
71 act ggc cgc agg tat ttt gtg gca ctt aac aaa gac gga act cca aga
                                                                     528
72 Thr Gly Arg Arg Tyr Phe Val Ala Leu Asn Lys Asp Gly Thr Pro Arg
                                       170
                  165
75 gat ggc gcc agg tcc aag agg cat cag aaa ttt aca cat ttc tta cct
                                                                     576
76 Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe Thr His Phe Leu Pro
                                   185
               180
79 aga cca gtg gat cca gaa aga gtt cca gaa ttg tac aag gac cta ctg
                                                                      624
80 Arg Pro Val Asp Pro Glu Arg Val Pro Glu Leu Tyr Lys Asp Leu Leu
                                                   205
                               200
                                                                      633
83 atg tac act
84 Met Tyr Thr
85
       210
88 <210> SEQ ID NO: 2
89 <211> LENGTH: 211
90 <212> TYPE: PRT
91 <213> ORGANISM: Homo sapiens
93 <400> SEQUENCE: 2
94 Met Ala Pro Leu Ala Glu Val Gly Gly Phe Leu Gly Gly Leu Glu Gly
                                         10
97 Leu Gly Gln Gln Val Gly Ser His Phe Leu Leu Pro Pro Ala Gly Glu
                                     2.5
                20
100 Arg Pro Pro Leu Leu Gly Glu Arg Arg Ser Ala Ala Glu Arg Ser Ala
101 35
103 Arg Gly Gly Pro Gly Ala Ala Gln Leu Ala His Leu His Gly Ile Leu
                              55
         50
106 Arg Arg Arg Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Gln Ile Leu
                                              75
                         70
109 Pro Asp Gly Ser Val Gln Gly Thr Arg Gln Asp His Ser Leu Phe Gly
112 Ile Leu Glu Phe Ile Ser Val Ala Val Gly Leu Val Ser Ile Arg Gly
                                     105
                100
115 Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Asp Lys Gly Glu Leu Tyr
                                                     125
                                 120
            115
 118 Gly Ser Glu Lys Leu Thr Ser Glu Cys Ile Phe Arg Glu Gln Phe Glu
                                                 140
                             135
 121 Glu Asn Trp Tyr Asn Thr Tyr Ser Ser Asn Ile Tyr Lys His Gly Asp
                                             155
                         150
 124 Thr Gly Arg Arg Tyr Phe Val Ala Leu Asn Lys Asp Gly Thr Pro Arg
                                         170
                     165
 127 Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe Thr His Phe Leu Pro
                                     185
 130 Arg Pro Val Asp Pro Glu Arg Val Pro Glu Leu Tyr Lys Asp Leu Leu
                                 200
             195
 131
 133 Met Tyr Thr
         210
 134
 138 <210> SEQ ID NO: 3
 139 <211> LENGTH: 38
```

38

DATE: 08/15/2001 RAW SEQUENCE LISTING TIME: 12:29:51 PATENT APPLICATION: US/09/494,585

Input Set : A:\Cura57U1.APP

Output Set: N:\CRF3\08152001\I494585.raw

- 140 <212> TYPE: DNA
- 141 <213> ORGANISM: Artificial Sequence
- 143 <220> FEATURE:
- 144 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
- 146 <400> SEQUENCE: 3
- 147 ctcgtcagat ctccaccatg gctcccttag ccgaagtc
- 150 <210> SEQ ID NO: 4
- 151 <211> LENGTH: 34
- 152 <212> TYPE: DNA
- 153 <213> ORGANISM: Artificial Sequence
- 155 <220> FEATURE:
- 156 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
- 158 <400> SEQUENCE: 4
- 34 159 ctcgtcctcg agagtgtaca tcagtaggtc cttg
- 162 <210> SEQ ID NO: 5
- 163 <211> LENGTH: 424
- 164 <212> TYPE: DNA
- 165 <213> ORGANISM: Homo sapiens
- 167 <400> SEQUENCE: 5
- 168 tggatcattt aaaggggatt ctcaggcgga ggcagctata ctgcaggact ggatttcact 60
- 169 tagaaatett eeccaatggt actateeagg gaaceaggaa agaceacage egatttggea 120
- 170 ttctggaatt tatcagtata gcagtgggcc tggtcagcat tcgaggcgtg gacagtggac 180
- 171 totacotogg gatgaatgag aagggggago tgtatggato agaaaaacta acccaagagt 240
- 172 gtgtattcag agaacagttc gaagaaaact ggtataatac gtactcgtca aacctatata 300
- 173 agcacgtgga cactggaagg cgatactatg ttgcattaaa taaagatggg accccgagag 360
- 174 aagggactag gactaaacgg caccagaaat tcacacattt tttacctaga ccagtggacc 420
- 175 ccga
- 178 <210> SEQ ID NO: 6
- 179 <211> LENGTH: 288
- 180 <212> TYPE: DNA
- 181 <213> ORGANISM: Homo sapiens
- 183 <400> SEQUENCE: 6
- 184 taccgaagag getgtggtee tgeegggtge eetgeacget geegteggge aggatetgea 60
- 185 ggtggaagee ggtgeggeaa tagagetgee ggegegeagg atgeegtgea ggtgegeeag 120
- 186 ctgcgcagcc cccggcccgc cgcgcgcgct ccgctccgcc gcgctcctgc gctcgcccag 180
- 187 cagcggcggc cgctccccgg caggaggcaa caggaaatgc gaacccacct gctggcccaa 240
- 188 gccctccagg ccgcccagaa agcccccgac ttcggctaag ggagccat
- 191 <210> SEQ ID NO: 7
- 192 <211> LENGTH: 255
- 193 <212> TYPE: DNA
- 194 <213> ORGANISM: Homo sapiens
- 196 <400> SEQUENCE: 7
- 197 agtgtacatc agtaggtcct tgtacaattc tggaactctt tctggatcca ctggtctagg 60
- 198 taagaaatgt gtaaatttet gatgeetett ggaeetggeg eeatetettg gagtteegte 120
- 199 tttgttaagt gccacaaaat acctgcggcc agtgtctcca tgtttatata tgttagatga 180 200 ataggtgtta taccagttct cttcaaactg ctccctaaag atgcattcgg aagtaagttt 240
- 201 ctcctgaaag agaga
- 204 <210> SEQ ID NO: 8
- 205 <211> LENGTH: 106

DATE: 08/15/2001 RAW SEQUENCE LISTING PATENT APPLICATION: US/09/494,585 TIME: 12:29:51

Input Set : A:\Cura57Ul.APP

Output Set: N:\CRF3\08152001\I494585.raw

```
206 <212> TYPE: DNA
207 <213> ORGANISM: Homo sapiens
209 <400> SEQUENCE: 8
210 ctgatccata gagttctcct ttgtcattca ttccaagata gagaccactg tccacacctc 60
211 taatactgac cagteceact gecacactga tgaatteeaa gatace
214 <210> SEQ ID NO: 9
215 <211> LENGTH: 208
216 <212> TYPE: PRT
217 <213> ORGANISM: Homo sapiens
219 <400> SEQUENCE: 9
220 Met Ala Pro Leu Gly Glu Val Gly Asn Tyr Phe Gly Val Gln Asp Ala
223 Val Pro Phe Gly Asn Val Pro Val Leu Pro Val Asp Ser Pro Val Leu
                                   25
226 Leu Ser Asp His Leu Gly Gln Ser Glu Ala Gly Gly Leu Pro Arg Gly
                               40
227 35
229 Pro Ala Val Thr Asp Leu Asp His Leu Lys Gly Ile Leu Arg Arg Arg
230 50
232 Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Glu Ile Phe Pro Asn Gly
                                           75
                        70
235 Thr Ile Gln Gly Thr Arg Lys Asp His Ser Arg Phe Gly Ile Leu Glu
                                       90
 238 Phe Ile Ser Ile Ala Val Gly Leu Val Ser Ile Arg Gly Val Asp Ser
                                   105
 241 Gly Leu Tyr Leu Gly Met Asn Glu Lys Gly Glu Leu Tyr Gly Ser Glu
                100
                              120
 242 115
 244 Lys Leu Thr Gln Glu Cys Val Phe Arg Glu Gln Phe Glu Glu Asn Trp
                           135
 247 Tyr Asn Thr Tyr Ser Ser Asn Leu Tyr Lys His Val Asp Thr Gly Arg
                                           155
                       150
 250 Arg Tyr Tyr Val Ala Leu Asn Lys Asp Gly Thr Pro Arg Glu Gly Thr
                                       170
                   165
 253 Arg Thr Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val
 254 180 185
 256 Asp Pro Asp Lys Val Pro Glu Leu Tyr Lys Asp Ile Leu Ser Gln Ser
                               200
 257 195
 263 <210> SEQ ID NO: 10
 264 <211> LENGTH: 208
 265 <212> TYPE: PRT
 266 <213> ORGANISM: Mus sp.
 269 Met Ala Pro Leu Gly Glu Val Gly Ser Tyr Phe Gly Val Gln Asp Ala
 268 <400> SEQUENCE: 10
  272 Val Pro Phe Gly Asn Val Pro Val Leu Pro Val Asp Ser Pro Val Leu
  275 Leu Asn Asp His Leu Gly Gln Ser Glu Ala Gly Gly Leu Pro Arg Gly
                 20
                                 40
  278 Pro Ala Val Thr Asp Leu Asp His Leu Lys Gly Ile Leu Arg Arg
  276 35
                             55
      50
  279
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/494,585

DATE: 08/15/2001
TIME: 12:29:51

Input Set : A:\Cura57Ul.APP

Output Set: N:\CRF3\08152001\1494585.raw

281 Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Glu Ile Phe Pro Asn Gly 70 284 Thr Ile Gln Gly Thr Arg Lys Asp His Ser Arg Phe Gly Ile Leu Glu 85 287 Phe Ile Ser Ile Ala Val Gly Leu Val Ser Ile Arg Gly Val Asp Ser 288 100 105 290 Gly Leu Tyr Leu Gly Met Asn Glu Lys Gly Glu Leu Tyr Gly Ser Glu 125 120 291 115 293 Lys Leu Thr Gln Glu Cys Val Phe Arg Glu Gln Phe Glu Glu Asn Trp 140 135 294 130 296 Tyr Asn Thr Tyr Ser Ser Asn Leu Tyr Lys His Val Asp Thr Gly Arg 155 150 299 Arg Tyr Tyr Val Ala Leu Asn Lys Asp Gly Thr Pro Arg Glu Gly Thr 170 165 302 Arg Thr Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val 303 180 185 305 Asp Pro Asp Lys Val Pro Glu Leu Tyr Lys Asp Ile Leu Ser Gln Ser 200 306 195 312 <210> SEQ ID NO: 11 313 <211> LENGTH: 208 314 <212> TYPE: PRT 315 <213> ORGANISM: Rattus sp. 317 <400> SEQUENCE: 11 318 Met Ala Pro Leu Gly Glu Val Gly Ser Tyr Phe Gly Val Gln Asp Ala 321 Val Pro Phe Gly Asn Val Pro Val Leu Pro Val Asp Ser Pro Val Leu 324 Leu Ser Asp His Leu Gly Gln Ser Glu Ala Gly Gly Leu Pro Arg Gly 325 35 327 Pro Ala Val Thr Asp Leu Asp His Leu Lys Gly Ile Leu Arg Arg Arg 55 330 Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Glu Ile Phe Pro Asn Gly 333 Thr Ile Gln Gly Thr Arg Lys Asp His Ser Arg Phe Gly Ile Leu Glu 90 85 336 Phe Ile Ser Ile Ala Val Gly Leu Val Ser Ile Arg Gly Val Asp Ser 105 100 339 Gly Leu Tyr Leu Gly Met Asn Glu Lys Gly Glu Leu Tyr Gly Ser Glu 120 342 Lys Leu Thr Gln Glu Cys Val Phe Arg Glu Gln Phe Glu Glu Asn Trp 135 345 Tyr Asn Thr Tyr Ser Ser Asn Leu Tyr Lys His Val Asp Thr Gly Arg 155 150 348 Arg Tyr Tyr Val Ala Leu Asn Lys Asp Gly Thr Pro Arg Glu Gly Thr 170 165 351 Arg Thr Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val 185 352 180 354 Asp Pro Asp Lys Val Pro Glu Leu Tyr Lys Asp Ile Leu Ser Gln Ser 200 355 195

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/494,585

DATE: 08/15/2001 TIME: 12:29:52

Input Set : A:\Cura57Ul.APP

Output Set: N:\CRF3\08152001\I494585.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date